

REMARKS

The Office Action dated December 1, 2006, has been received and carefully noted. The above amendments and the following remarks are being submitted as a full and complete response thereto.

Claims 1 – 23 are pending. A minor typographical error is being corrected in Claim 21. Claims 22 and 23 are being added to complete the coverage of the invention. The limitations of dependent claim 22 are based, at least in part, on the description of paragraph [0075] of the present specification. The limitations of dependent claim 23 are based, at least in part, on the solubility parameters of copolymers A1 to A5 described in Table 1 of paragraph [0130] of the present specification. No new matter is being added.

The Office Action objected to the Abstract of the Disclosure as containing improper legal phraseology. The Abstract is being corrected above. No new matter is added.

Claims 1 – 21 were rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent No. 6,746,993 to Yuki et al (hereinafter Yuki '993). It is noted that the Office Action also acknowledged receipt of the certified copy of the Applicants' priority application.

The Applicants attach herewith a verified translation of the priority application. By this filing, this application is entitled to an invention date of August 2, 2002, prior in time to the U.S. filing date of Yuki '993 which is August 7, 2002. Consequently, Yuki '993 is not a proper reference as to the claims of the present application. It is respectfully requested that this rejection be withdrawn.

It is noted that Yuki '993 is a continuation-in-part of U.S. Application No. 10/212,784, published as US 2003/0036488 A1, (herein after Yuki '488). However, it is believed that the Examiner's rejection is based at least in part upon material that was new matter in Yuki '993 and, thus, is not entitled to any earlier filing date.

The improver of the present invention comprises a copolymer (A) comprising units of 5-50% by weight of an unsaturated monomer (c) having at least one group selected from hydroxyl, amide and carboxyl groups as an essential constituent monomer, as shown in claim 1. Yuki '488 and Yuki '993 disclose monomer (d2) having a amide group, monomer (l) having a hydroxyl group, and monomer (m) having a carboxyl group, which are similar to monomer (c) of the present invention, together with other monomers, not as essential constituent monomers but as optional monomers (see paragraphs [0051]-[0094] of Yuki '488 and col. 5, line 43-col. 8, line 11 of Yuki '993).

In addition, the amount of monomer (c) of the present invention is different from that of monomers (d2), (l) and (m). Yuki '488 discloses "If (d) to (m) is employed by requirement, together with the monomers (a) to (c) for synthesis (A), the sum amount, if plural kinds of monomers (d) to (m) are employed, or the amount if single monomer selected from the group consisting of (d) to (m) is employed, is preferably 0-20%, particularly 0.1-10% against total weight of monomers ((a) to (m)) to be used for synthesis (A)" (see paragraph [0094]). Yuki '993 discloses "Polymers (A1) are preferably comprised of units of ...; 0-12%, particularly 0-10% of said monomer (d); and 0-20%, particularly 0.1-10% of one or more of the monomers (e)-(k)" (see col. 8, lines 22-25).

The present invention has the following distinctive features:

(1) selecting, as a constituent of essential monomer(c), only monomer (d2) having a amide group, monomer (l) having a hydroxyl group, and monomer (m) having a carboxyl group from the group consisting of many monomers described in Yuki '488 and Yuki '993, that is, monomers (d) to (m); and

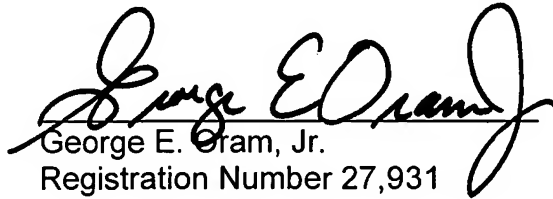
(2) adopting "5-50% by weight" as the amount of essential monomer (c).

Thereby, as compared with the lube oil composition of Yuki '488 and Yuki '993, the lube oil composition containing the improver of the present invention can strikingly improve viscosity index, and is also very excellent in shear stability and low-temperature viscosity.

Applicants respectfully submit that this application is in condition for allowance and such action is earnestly solicited. If the Examiner believes that anything further is desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact Applicants' undersigned representative at the telephone number listed below to schedule a personal or telephone interview to discuss any remaining issues.

In the event that this paper is not considered to be timely filed, an appropriate extension of time is requested. Any fees for such an extension, together with any additional fees that may be due with respect to this paper, may be charged to Counsel's Deposit Account Number 01-2300, referencing Docket Number 103176-00003.

Respectfully submitted,


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